

Quantification of Carbamates Fungicides in Beverage by LC/MS/MS

Column: Gemini® 3 µm C18 110 Å, LC Column 50 x 2 mm, Ea

Dimensions: 50 x 2 mm ID

Order No: 00B-4439-B0

Elution Type: Gradient

Eluent A: 5mM ammonium formate

Eluent B: 5mM ammonium formate in acetonitrile

Gradient Profile:	Step No.	Time (min)	Pct A	Pct B
	1	0	85	15
	2	2.5	5	95
	3	4	5	95
	4	4.01	85	15
	5	8	85	15

Flow Rate: 0.5 mL/min

Col. Temp.: 28 °C

Detection: Tandem Mass Spec (MS-MS) @ (ambient)

Detector Info: 3200 QTRAP

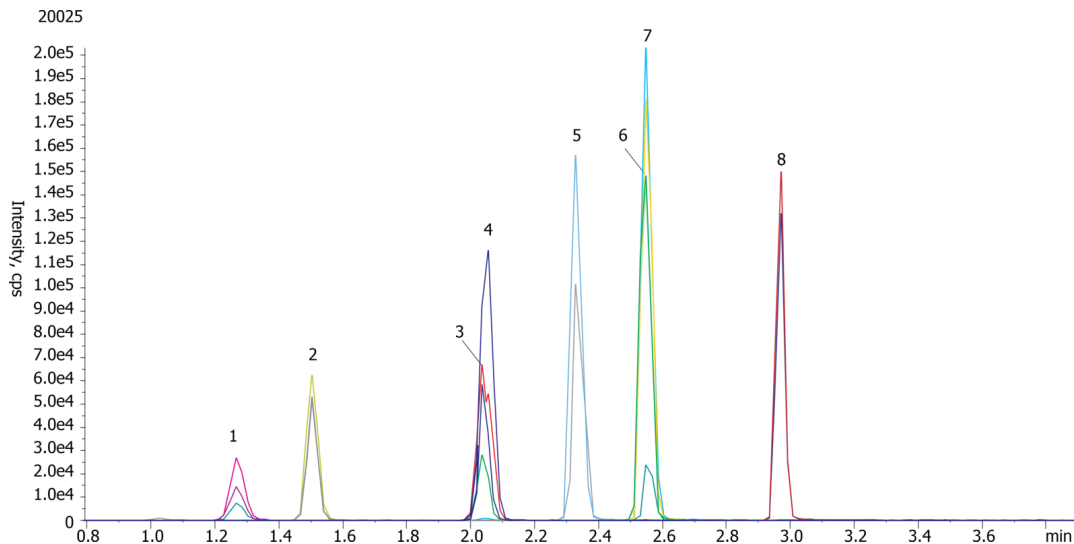
Analyst Note: SecurityGuard™ Guard Cartridge System extends column lifetime.

- SecurityGuard Cartridges, Gemini C18 4 x 2.0mm ID, 10/PK Part No.: AJ0-7596

- Holder Part No.: KJ0-4282



Products used in this application:



ANALYTES:

- 1** Aldicarb-sulfone
Retention Time: 1.27 min
- 2** Methomyl
Retention Time: 1.5 min
- 3** 3-Hydroxycarbofuran
Retention Time: 2.04 min
- 4** Oxamyl
Retention Time: 2.05 min
- 5** Aldicarb
Retention Time: 2.33 min
- 6** Carbofuran
Retention Time: 2.55 min
- 7** Carbofuran-d3
Retention Time: 2.55 min
- 8** Methiocarb
Retention Time: 2.97 min

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Sample Preparation Details

for HPLC Application ID No.: 20025

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PRODUCT DESCRIPTION:

Strata[™]-X 33 µm Polymeric Reversed Phase, 30 mg / 3 mL, Tubes , 50/Pk

Order No.: 8B-S100-TBJ

SOLID PHASE EXTRACTION (SPE) PROCEDURE:

Note: The solvent volumes shown below are for a 30 mg bed mass.

The solvent volumes will need to be adjusted for a smaller or larger bed mass.

Condition:

Load:

Combine 400 µL apple juice with 1 mL 25 mM Ammonium acetate buffer (pH 5.5), vortex

Wash:

Dry:

2 min at 10mm Hg

Elute:

Final Prep and Analysis:

Inject: 10 µL on HPLC Tandem Mass Spec (MS-MS) @ (ambient)

ANALYTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
1 Aldicarb-sulfone	40			140.8	
2 Methomyl	40			107	
3 3-Hydroxycarbofuran	40			146.2	
4 Oxamyl	40			143.3	
5 Aldicarb	40			79.7	
6 Carbofuran	40			102	
7 Carbofuran-d3	40				
8 Methiocarb	40			75.8	

Note: This method is designed as a convenient starting point for further investigation and can be tailored to meet your extraction goals. Call your local Phenomenex Representative for assistance in method development and optimization techniques.

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